Project Proposal

Prepared for: Software Engineering

Prepared by: No Stress SRL

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EXECUTIVE SUMMARY

Objective

A smart thermostat is a device that will help you control your heating equipment efficiently to achieve a comfortable indoor temperature. **You will use this smart home device to select a temperature setting of your choice**, making your home more comfortable for everyone.

Goals

- Control the temperature even from a distance
- Friendly user interface
- Customise temperature in order to optimise you level of energy consumption, by controlling the temperature in each room independently

Solution

You could still control this smart thermostat even if you're miles away from your commercial building. You can use this app to select any temperature setting from anywhere. And that means you could be at a meeting and control the temperature via the app.

Remote temperature control offers convenience, especially if you're away from your smart temperature control device.

Since commercial buildings are usually large, customising the temperature in each room might be challenging. But you could customise the temperature of each zone using the SmartSensors since this smart thermostat is compatible with the sensors.

You will buy the sensors separately, and it is advisable you do because they turn off your HVAC system if no one is in the zone to use the comfortable temperature condition.

If you're looking for energy-saving performance, you might want to consider this smart thermostat. It reduces your annual heating and cooling cost by 23%.

The device also illuminates when you're nearby to let you view the reading on its display. With all these features, it is one of the best smart commercial smart thermostats to consider.

Project Outline

Our project is built using Django Rest Framework in Python programming language. It uses a default Django Rest Auth authentication for register and login pages. Each account and thermostat saved inside the application is being deposited into a database (sqlite). For each operation the application is able of doing, a view for the respective function has been created, each route being parsed into the urls file.

Our app also benefits from a Django Administrator page, via a superuser. Each superuser can view and also override everything that is happening live within the application, for example:

- You can see all the active accounts from the software
- You are able to edit, delete, or give administrative roles to other users
- You can see each existing thermostat, edit their temperature, as well as their owner
- You can delete an existing thermostat
- You can also activate a new thermostat, as well as assigning the respective thermostat to a said user

In the base application, for everyday use, we benefit our non-superuser clients with:

- Secure login and registration forms
- Main page (home) where they have a clear overview of their thermostats
- Being able to edit each of them individually, change temperature and online or offline status of the thermostat
- The temperature is being sent to an online server that confirms the modification and returns a True response that will trigger your thermostat and will change the temperature
- You can delete any thermostat in case you want to relocate them
- You can add new thermostats to your home/office building via a form located in the top left of your application

Target Group

Our project targets people from every age category that want to benefit from a **No Stress** life, talking from being able to control each room's temperature, not worrying about leaving the heat on when you go away on business or vacation trips and also being able to pre-heat any room desired in case you have been gone for some time and want to come back to a cosy and warm house without having to consume energy throughout your absence.

BUDGET

A simple three room house or apartment package

We have prepared an example of costs in order to benefit from our services. The package includes the three thermostats needed in order to have one in each room, the SmartSensor for reading the exact room temperature and our Mini IoT Controller Software (the administrative application is included).

Description	Quantity	Unit Price	Cost
Thermostat Device	3	850 RON	2.550 RON
Mini IoT Controller Software	1	3.350 RON	3.350 RON
SmartSensor	3	245 RON	735 RON
TVA	1	1.261 RON	1.261 RON
Total			**7.896 RON**